Space Weather Forecast

Issued on Saturday, 06 April 2024 at 01:21 Local

This forecast provides a four day assessment of space weather events. The probabilities stated below are for reaching or exceeding the given levels. For more information about space weather impacts please see the Met Office Space Weather Scales https://www.metoffice.gov.uk/weather/learn-about/space-weather/uk-scales

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Space Weather Forecast Headline: No significant activity forecast.
Analysis of Space Weather Activity over past 24 hours
Solar Activity: Low with only one common class flare observed from just over the southeast limb. There are six sunspot regions on the visible disc, with two in the western hemisphere showing modest but notable developments. The other region of note, is a unipolar region in the northeast quadrant.

No Earth-directed CMEs have been observed, with a CME from the southwest assessed as being on the farside of the Sun.

Solar Wind / Geomagnetic Activity: A waning fats solar wind, has been at slight elevated levels throughout, but has declined to close to background by the end of the period. Total magnetic field strength was weak throughout, with the north-south component, Bz, generally weakly negative. Geomagnetic activity was Quiet to Unsettled (Kp2-3).

Energetic Particles / Solar Radiation: The count rate of energetic particles (high energy protons) was at background levels with no solar radiation storms observed.

Four-Day Space Weather Forecast Summary
Solar Activity: Low to Very Low activity is expected through the period, with a slight chance of isolated Moderate activity. There is an increasing risk of Moderate activity as the period progresses.

Solar Wind / Geomagnetic Activity: No Earth-directed CMEs. Solar winds are expected to continue to trend towards background on 06 and 07 Apr. A further slightly elevated faster solar wind may then connect with the Earth on 09 Apr, although this is low confidence. Geomagnetic activity is forecast to be Quiet to Unsettled on 06 Apr, with a decreasing risk through 07 and 08 Apr. Further Unsettled to Active intervals are then possible on 09 Apr, but with a high level of uncertainty.

Energetic Particles / Solar Radiation: The count rate of energetic particles (high energy protons) is expected to remain at background levels.

Issued by Met Office Space Weather Advisor, Tel: +44 (0) 330 135 4254 Email: moswoc@metoffice.gov.uk

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Geomagnetic Storms:

Geo-Magnetic Storm Probability (Exceedance)	Level	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC) (%)	Day 2 (00-24 UTC) (%)	Day 3 (00-24 UTC) (%)	Day 4 (00-24 UTC) (%)
Minor or Moderate	G1 to G2	No	1	1	1	5
Strong	G3	No	1	1	1	1
Severe	G4	No	1	1	1	1
Extreme	G5	No	1	1	1	1

Radio Blackouts - X Ray Flares:

X Ray Flares Probability	Level	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC) (%)	Day 2 (00-24 UTC) (%)	Day 3 (00-24 UTC) (%)	Day 4 (00-24 UTC) (%)
Active	R1-R2 M Class	No	20	20	30	20
Very Active	R3 to R5 X	No	1	1	1	1

Solar Radiation Storms - (High Energy Protons):

Radiation Storms Probability (Exceedance)	Level (cm^{-2} sr^{-1} s^{-1})	Past 24 Hours (Yes/No)	Day 1 (00-24 UTC) (%)	Day 2 (00-24 UTC) (%)	Day 3 (00-24 UTC) (%)	Day 4 (00-24 UTC) (%)
Active	≥ S1	No	1	1	1	1
Very Active	≥ S3 *	No	1	1	1	1

* S3 ≥ 10 MeV ≥ 1000 pfu and / or ≥ 50 MeV ≥ 10 pfu. (pfu = $cm^{-2}sr^{-1}s^{-1}$)

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